

Appl. No. 10/666,493  
Reply to Final Office Action of January 25, 2006

**REMARKS**

Claims 1-19 and 29 are pending. Claims 1, 7, 11, 12, 19 and 29 are amended. Claims 10 and 18 are canceled. Claims 1, 12 and 29 are amended to include features already included in Claim 10 or 18, to reduce the number of issues for appeal. No new issue of patentability is raised. Entry of the amendment under 37 C.F.R. 1.116 is proper. Reconsideration of this application is respectfully requested.

**Claim rejections under 35 U.S.C. §102(b)**

The Action rejected Claims 1-3, 5, 7, 10, 12, 13, 18 and 29 under 35 U.S.C. §102(b) as being anticipated by Jeong (US 6,228,211). Claims 10 and 18 are canceled, obviating the rejections thereof.

Claim 1 has been amended to recite that a regulating means includes slats and openings disposed in said tank and over said drain opening, wherein one of said slats substantially covers said drain opening.

Jeong fails to disclose or suggest that one of the slats substantially covers the drain opening. The Action stated that Jeong discloses that the slat, i.e. air passage 23 referenced by the Examiner, covers the drain opening 18. Applicant respectfully disagrees. The only descriptions of the air passage 23 in Jeong are the connection of the air passage 23 and air supplying tubes 22, Col. 3, Lines 41-46; and the flow of nitrogen from the air tubes 22 through the air filling holes 26, the air passage 23 and the air discharging holes 25 (Col. 3, Lines 59-64). Nowhere does Jeong disclose or suggest that the slat substantially covers the drain opening. Further, Jeong's FIGS. 2a, 2b and 2c show the air bubbling plate 3 with the air passage 23, and side views of the annular frame 20 with the air passage 23, respectively. Jeong's FIG. 2a merely shows that the air passage 23 is connected to the air supplying tube 6 through the air filling hole 26. None of Jeong's figures discloses or suggests that the slate substantially covers the drain opening. Accordingly, Claim 1 is not anticipated by Jeong and, therefore, should be allowed for at least these reasons.

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Claims 2, 3, 5 and 7 depend from Claim 1. They are not anticipated by Jeong for at least the reasons set forth above in connection with Claim 1.

Claim 12 has been amended to recite that one of said slats substantially covers said drain opening as recited in Claim 1. Claim 12 is not anticipated over Jeong and, therefore, should be allowed under 102(b) for at least the reasons set forth in reference to Claim 1.

Claim 13 depends from Claim 12, and should not be anticipated by Jeong for at least the reasons described above.

Claim 29 also has been amended to recite that one of said slats substantially covers said drain opening as recited in Claim 1. Claim 29 thus is not anticipated by Jeong for at least the reasons set forth in connection with Claim 1.

**Claim rejections under 35 U.S.C. §103(a)**

This Action rejected Claims 6 and 16 under 35 U.S.C. §103(a) as being unpatentable over Jeong in view of Shindo et al. (US 5,845,660). Applicant believes that the Examiner intended to refer to Claim 15, because Claim 16 does not recite the feature of PEEK, which is mentioned in the rejection. Though Shindo discloses some features with respect to PEEK that Jeong fails to disclose, the combined teachings of Jeong and Shindo fail to cure the deficiencies of Jeong with respect to the features recited in independent Claim 1. Claim 6 depends from Claim 1 and, therefore, should be patentable for at least the reasons described above.

Claim 15 depends from Claim 12, which has been amended to recite the features set forth above. Because the combined teachings of Jeong and Shindo fail to disclose or suggest the features of independent Claim 12, Claim 15 should be patentable for at least the same reason described above.

The Action also rejected Claims 9, 11, 14, 16 and 19 under 35 U.S.C. §103(a) as being unpatentable over Jeong in view of Sonoda et al. (US 6,616,774). Claims 9 and 11 depend from Claim 1. As discussed above, Jeong fails to disclose or suggest the features of Claim 1.

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Sonoda's disclosure also fails to cure the deficiency of Jeong's disclosure with respect to the features of independent Claim 1. Therefore, the combined teachings of Jeong and Sonoda do not render Claims 9 and 11 unpatentable.

Claims 14, 16 and 19 depend from Claim 12. Claim 12 has been amended to recite the features described above. Claim 14, 16 and 19 are patentable and, therefore, should be allowed for at least the reasons set forth above.

The Action alleges that Sonoda teaches a wet etching apparatus wherein a rectifying means has openings and angled rods 24, which are "inclined" with respect to the bottom of the tank 20, and that the combination of Jeong and Sonoda makes Claims 9, 11, 14, 16 and 19 obvious under §103(a). Applicant respectfully disagrees. Sonoda, in fact, provides a wafer cleaning device to prevent wafer contamination and reduce space of the cleaning device, rather than any regulating means to control the downward draining flow and rate in the tank. Further, Jeong also fails to disclose or suggest using the bubbling plate 3 to control the downward draining flow and rate in the tank. In Sonoda, the "inclined portions" are the bottom portions 26 of the cleaning tank, rather than the rods 24, which are referenced by the Examiner. Neither drawings nor specification of Sonoda discloses or suggests using the bottom portions 26 to control the downward draining flow and rate in the tank. One of ordinary skill in the art at the time applicant's invention was made would not have been motivated to incorporate Jeong's bubbling plate 3 and Sonoda's inclined bottom portions 26 because they are disposed at different locations of the tank and provide different functions and purposes, and Jeong and Sonoda are silent to the features recited in Claims 9, 11, 14, 16 and 19. Thus, the combined teachings of Jeong and Sonoda do not achieve the features of Claims 9, 11, 14, 16 and 19.

Therefore, Claims 9, 11, 14, 16 and 19 should be patentable over the art of record and not subject to rejection under 35 U.S.C. §103(a) for at least the reasons.

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**Claims 7, 11 and 19**

Claim 7 has been amended to correct an obvious error, by deleting the "slats or" before holes. One of ordinary skill in the art would have recognized that claim 7 had an error, because a slat is not an opening. No new issue of patentability is raised.

Claims 11 and 19 have been amended to depend on Claims 1 and 12, respectively. The amendments to Claims 11 and 19 are made consistent with the cancellation of Claims 10 and 18.

**Claims 4, 8 and 17**

The Action did not state any ground for rejection or objection with respect to Claims 4, 8 and 17. Claims 4, 8 and 17 thus should be allowed.

In addition, Claims 4, 8 and 17 depend from and incorporate the feature of the amended Claims 1 and 12, respectively. Claims 4, 8 and 17 should be allowed for at least the same reason set forth with respect to Claims 1 and 12.

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**Conclusion**

In view of the foregoing amendments and remarks, Applicant submits that this application is in condition for allowance. Early notification to that effect is respectfully requested.

The Commissioner for Patents is hereby authorized to charge any additional fees or credit any excess payment that may be associated with this communication to deposit account 04-1679.

Respectfully submitted,

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